Amendments to the Claims:

1. (currently amended) A method ~~(300)~~ of determining per-cell traffic coverage in a cellular communication system that comprises multiple cells, the method ~~characterised by~~ comprising the steps of:

receiving measurements of ~~one or more~~ parameters relating to one or more operations of a first cell in a cellular communication system, wherein said ~~one or more~~ parameters include~~s~~ information relating to ~~whether a~~ how many and which cells serve a wireless subscriber communication unit ~~can be served by one or more other cells than the first cell or uniquely served by the first cell~~; and

calculating ~~(310, 315)~~ a degree of coverage overlap for said first cell based on a number of said measurements~~, wherein said~~ by partitioning said measurements ~~are partitioned (310)~~ into at least one ~~or more~~ of ~~at least~~ three categories with respect to the first cell, ~~wherein~~ selected from the group of:

(i) A first category ~~is~~ where the measurement indicates a wireless subscriber unit that is uniquely served by the first cell,

(ii) A second category where the measurement indicates a wireless subscriber unit that can be served by ~~one or more other~~ cells other than the first cell, and

(iii) A third category where the measurement indicates a wireless subscriber unit that is served by a neighbo~~u~~ring cell but could be served by the first cell.

2. (currently amended) The method ~~(300)~~ of determining per-cell traffic coverage in a cellular communication system according to Claim 1, wherein the step of calculating ~~(310, 315)~~ a degree of coverage overlap based on a number of said measurements employs a statistically valid sample of said measurements.

3. (currently amended) The method ~~(300)~~ of determining per-cell traffic coverage in a cellular communication system according to ~~any preceding~~ Claim 1, wherein the step of calculating ~~(310, 315)~~ comprises determining a unique coverage factor (UCF) for that cell using Measurement Reports (MR), where:

$$UCF = \frac{\text{Sum of MRs with no and/or weak neighbours}}{\text{Total Sum of MRs}}$$

4. (currently amended) The method ~~(300)~~ of determining per-cell traffic coverage in a cellular communication system according to ~~any preceding~~ Claim 1, the method further ~~characterised by~~ comprising the step of:

converting ~~(315)~~ a number of measurements to Erlangs to determine a coverage overlap based on subscriber traffic within said cell.

5. (currently amended) The method ~~(300)~~ of determining per-cell traffic coverage in a cellular communication system according to ~~any preceding~~ Claim 1, the method further ~~characterised by~~ comprising the step of:

allocating a priority~~, for example an alarm priority,~~ to said cell based on said calculation.

6. (currently amended) The method ~~(300)~~ of determining per-cell traffic coverage in a cellular communication system according to ~~any preceding~~ Claim 1, the method further ~~characterised by~~ comprising the step of:

in response to said calculation, re-configuring ~~(335) an~~ at least one operational parameter of said cell~~, for example~~ selected from the group of; a transmit power, a beam-forming antenna ~~tilt or direction~~ changes, ~~or~~ and turning off a cell~~, in response to said calculation~~.

7. (currently amended) The method ~~(300)~~ of determining per-cell traffic coverage in a cellular communication system according to ~~any preceding~~ Claim 1, the method further ~~characterised by~~ comprising the steps of:

storing said calculations; and

using ~~(330)~~ said stored calculation subsequently to determine a cell outage strategy.

8. (currently amended) The method ~~(300)~~ of determining per-cell traffic coverage in a cellular communication system according to ~~any preceding~~ Claim 1, wherein the steps of measuring and calculating are used in an automatic frequency planning operation of said cellular communication system.

9. (currently amended) The method ~~(300)~~ of determining per-cell traffic coverage in a cellular communication system according to ~~any preceding~~ Claim 1, wherein the wireless communication unit ~~(146)~~ receives measurement reports from a wireless serving communication unit~~, for example~~ selected from the group of; a base transceiver station ~~(122-132), or~~ and a wireless subscriber communication unit ~~(112-116)~~.

10-11. (canceled).

12. (currently amended) A communication unit ~~(146)~~ for use in a cellular communication system that comprises multiple cells, the communication unit ~~(146)~~ comprising:

a ~~receiving function~~ receiver for receiving measurements of ~~one or more~~ parameters relating to one or more operations of a first cell in said cellular communication system; and

a processor, operably coupled to said ~~receiving function~~ receiver, to process said received data, ~~the communication unit characterised in that~~ wherein said processor calculates a degree of coverage overlap based on a number of said measurements~~, wherein: said processor partitions~~ by partitioning said received measurements into at least one of three categories with respect to the first cell, ~~wherein~~ selected from the group of:

(i) A first category ~~indicates~~ indicating a wireless subscriber unit that is uniquely served by the first cell,

(ii) A second category where the measurement indicates a wireless subscriber unit that can be served by a number of cells, and

(iii) A third category where the measurement indicates a wireless subscriber unit that is served by a neighbo~~u~~ring cell but is located such that it could be served by the first cell.

13. (currently amended) The communication unit according to Claim 12, wherein said processor determines a unique coverage factor (UCF) for a cell ~~(UCF)~~ using Measurement Reports (MR), where:

$$\text{UCF} = \frac{\text{Sum of MRs with no and/or weak neighbo}\sout{\text{u}}\text{rs}}{\text{Total Sum of MRs}}$$

14. (currently amended) The communication unit according to ~~any of preceding~~ Claim~~s~~ 12 ~~to~~ ~~13~~, wherein said processor converts a number of measurements to Erlangs to determine a coverage overlap based on subscriber traffic within said cell.

15. (currently amended) The communication unit according to Claim 14, wherein said processor allocates a priority~~, for example an alarm priority,~~ to said cell based on said calculation.

16. (currently amended) The communication unit according to ~~any of preceding~~ Claim~~s~~ 12 ~~to~~ ~~15~~, wherein, in response to said calculation, said communication unit ~~or a unit operably coupled to the communication unit~~ is operable to re-configure~~s~~ at least one ~~or more~~ operational parameter~~s~~ of said cell ~~in response to said calculation~~.

17. (currently amended) The communication unit according to Claim 16, wherein said communication unit configures said cell for at least one of the group of; transmit power changes, beam-forming antenna changes, and~~/or~~ switching off said cell site.

18. (currently amended) The communication unit according to ~~any of preceding~~ Claim~~s~~ 12 ~~to~~ ~~17~~, wherein said communication unit is an operations and management centre ~~(146)~~ configured to receive measurement report data relating to cells in said cellular communication system.

19. (currently amended) The communication unit according to ~~any of preceding~~ Claim~~s~~ 12 ~~to~~ ~~18~~, wherein said measured data includes at least one ~~or more~~ of the following:

(i) Cell statistical information including at least one of Congestion, Blocking, Mean-Hold Time (MHT), and Handover (HO) Cause distribution information;

(ii) One or more Measurement Reports; ~~or~~ and

(iii) Control Signalling behavio~~u~~r.

20. (currently amended) The communication unit according to ~~any of preceding~~ Claim~~s~~ 12 ~~to~~ ~~19~~, wherein said processor is operably coupled to a memory device for storing said calculations for subsequent use in determining a cell outage strategy.

21. (currently amended) The communication unit according to ~~any of preceding~~ Claim~~s~~ 12 ~~to~~ ~~20~~, wherein said communication unit is able to communicate on at least on of a GSM, GPRS, UMTS, iDEN, ~~or~~ and CDMA cellular communication system.